

Title (en)
IMPROVED METHODS FOR LOCALIZATION IN NMR SPECTROSCOPY

Publication
EP 0293694 A3 19900321 (EN)

Application
EP 88108114 A 19880520

Priority
US 5651387 A 19870601

Abstract (en)
[origin: EP0293694A2] A method for acquiring an NMR spectroscopy response signal from a portion of a sample located in a voxel at the junction of three planar surfaces, each in a plane at an angle to the planes of the other two surfaces, first excites the sample with a localization subsequence which selects values for the surfaces in only two of the three dimensions, to evoke a chemical-shift spectrum from voxels substantially along a line at the junction of the two selected planes; and then provides a readout subsequence including a NMR signal portion spatially-selective in the third dimension and selected to limit the received spectroscopy response signal substantially to the voxel of interest. Any necessary cycling of sequences to improve spatial localization is provided in the two dimensions of the preliminary localization subsequence; phase cycling or alternation is not used in the selective RF pulse of the data acquisition subsequence. The methods provide improvements in immunity to localization artifacts, as may be produced physiological motion, or by NMR relaxation between the localization and read-out subsequences.

IPC 1-7
G01N 24/08

IPC 8 full level
A61B 10/00 (2006.01); **A61B 5/055** (2006.01); **G01R 33/48** (2006.01); **G01R 33/483** (2006.01)

CPC (source: EP US)
G01R 33/483 (2013.01 - EP US)

Citation (search report)

- [X] EP 0096590 A1 19831221 - PICKER INT LTD [GB]
- [Y] EP 0175611 A2 19860326 - THOMSON CGR [FR]
- [X] GB 2114756 A 19830824 - OXFORD RES SYST
- [X] EP 0106226 A2 19840425 - GEN ELECTRIC [US]
- [YD] JOURNAL OF MAGNETIC RESONANCE
- JOURNAL OF MAGNETIC RESONANCE
- JOURNAL OF MAGNETIC RESONANCE

Designated contracting state (EPC)
DE FR GB NL

DOCDB simple family (publication)
US 4733185 A 19880322; EP 0293694 A2 19881207; EP 0293694 A3 19900321; JP H0698141 B2 19941207; JP S63305851 A 19881213

DOCDB simple family (application)
US 5651387 A 19870601; EP 88108114 A 19880520; JP 12606988 A 19880525